Early pandemic forecast for New Zealand M: multi-output M: multi-output M: repeated single-output (deaths) (deaths + mobility) (deaths) 6 6 per million of population Prediction Prediction Prediction Truth Truth Truth Death incidence 4 4 2 2 0 0 8 10 10 12 10 Days since April 22 2020 Days since April 22 2020 Days since April 22 2020 B: Bi-LSTM (deaths) B: LSTM (deaths) B: GRU (deaths + mobility) 6 6 per million of population Prediction Prediction Prediction Truth Truth Truth Death incidence 4 4 2 2 0 12 10 8 10 12 8 8 10 12 Days since April 22 2020 Days since April 22 2020 Days since April 22 2020 B: ARIMA wavelet **B**: Persistence 6 per million of population Prediction Prediction Truth Truth Death incidence 4 2 10 12 10 12 8 0 8

Days since April 22 2020

Days since April 22 2020